

KIRILLOV, I.A., prof.; BORODIN, S.V.; VINOKUR, R.D.; VOSKRESENSKIY, A.A.;  
GIROVSKIY, V.F.; ZHITOMIRSKIY, E.G.; SAFRAY, G.Ye.; SYCHEV, M.G.;  
NIKITIN, N.D.; FILATOV, N.L.; FIALKOVA, V., red.; LEBEDEV, A.,  
tekhn.red.

[Finances of branches of the national economy] Finansy otraslei  
narodnogo khoziaistva. Avtorskii kollektiv pod rukovodstvom  
I.A.Kirillova. Moskva, Gosfinizdat, 1958. 302 p. (MIRA 12:2)  
(Finance)

SOV-3-58-8-8/26

AUTHORS:

Girovskiy, V.F., **Docent**, Candidate of Economical Sciences and Fedyushin, A.A.

TITLE:

A Laboratory for Solving Problems Has Been Organized by Combined Efforts (Ob'yedinennymi usiliyami soddana problema laboratoriya)

PERIODICAL:

Vestnik vysshey shkoly, 1958, Nr 8, pp 35 - 36 (USSR)

ABSTRACT:

For many years the scientific-pedagogical personnel of the Moscow Engineering and Economics Institute imeni S. Ordzhonikidze (MIEI) have helped a number of enterprises to improve the economics, organization and technology of production. After the reorganization of industry and the establishment of sovnarkhozes the MIEI personnel concentrated on rendering scientific assistance to the enterprises of the Sovnarkhoz of the Moscow (city) Economic Administrative District. The first step in this direction was the establishment of a scientific-research laboratory for the economics and organization of production. The purpose of this laboratory is the investigating of important problems connected with the industrial development of Moscow. The author mentions the most important research to be done

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A Laboratory for Solving Problems Has Been Organized by Combined Efforts

in 1958, provided for in a plan, and deals in detail with some of the items. The personnel consists of 14 professors and 19 **docents** and candidates of sciences. In individual projects the participation of members of the Moscow State Economics, Textile and Forestry-Engineering Institutes, as well as of the Technological Institute of the Light and Food Industries, and of the Higher Party School will be invited.

Association: Moskovskiy inzhenerno-ekonomicheskii institut imeni S. Ordzhonikidze (Moscow Engineering and Economics Institute imeni S. Ordzhonikidze).

Card 2/2

KOZLOVA, O.; GIROVSKIY, V. F

Training economic personnel for industrial enterprises. Vop.  
ekon. no.12:46-52 D '58. (MIRA 11:12)

1. Direktor Moskovskogo inzhenerno-ekonomicheskogo instituta  
imeni S. Ordzhonikidze (for Kozlova). 2. Zamestitel' direktora  
Moskovskogo inzhenerno-ekonomicheskogo instituta imeni S.  
Ordzhonikidze (for Girovskiy).  
(Economics--Study and teaching)  
(Russia--Industries)

KIRILLOV, Ivan Akimovich, prof.. Primal uchastiye GIROVSKIY, V.P.,  
dotsent. VINOGRAD, R., otv.red.; FILIPPOVA, E., red.;  
LEBEDEV, A., tekhn.red.

[Finances of socialist industry] Finansy sotsialisticheskoi  
promyshlennosti. Moskva, Gosfinizdat, 1959. 279 p.  
(MIRA 12:10)

(Finance)



GIROVSKIY, V.F., dotsent, kand.ekonom.nauk

Regulating prices and drawing up estimates in the construction industry. Trudy MIEI no.14:451-462 '59. (MIRA 13:1)

1. Moskovskiy inzhenerno-ekonomicheskij institut.  
(Building--Estimates)

MITIN, Sergey Andreyevich; GOBERMAN, M.D.; MIKHAYLOV, P.D.; RUSAKOV, A.N.; SEMIBRATOV, V.N.; TORGONENKO, Ye.A.; GIROVSKIY, V.F., glav. red.; USPENSKIY, V.V., zam. glav. red.; BASHINSKIY, S.V., red.; GORBUSHIN, P.B., red.; IGUREVICH, M.S., red.; LEYKIN, B.P., red.; MALYUGIN, V.I., red.; BOGINA, S.L., red. izd-va; NAUMOVA, G.D., tekhn. red.

[Manual on labor and wages in construction] Spravochnik po trudu i zarabotnoi plate v stroitel'stve. Pod red. S.A.Mitina. Moskva, Gosstroizdat, 1962. 581 p. (MIRA 15:7)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'nyy institut ekonomiki stroitel'stva. (Wages--Construction industry)



SYTNIK, Ivan Panteleymonovich, kand. tekhn.nauk, dots.; KHAZAN, Moisey Yakovlevich, kand. tekhn. nauk, dots.; KUCHERENKO, Konstantin Rodionovich, kand. tekhn.nauk, dots.; KASPIN, Lev Abramovich, kand. ekon. nauk; ANFIMOV, Sergey Aleksandrovich, dots.; MASALOV, Grigoriy L'vovich, dots.; SALIVON, Ivan Ivanovich, assistant; GIROVSKIY, V.F., doktor ekon. nauk, prof., retsenzent; GUREVICH, M.S., ekon., retsenzent; ROTSHTEYN, A.G., kand. ekon. nauk, retsenzent; VAYNSHTEYN, B.S., kand. ekon. nauk, nauchn. red.; GERASIMOVA, G.S., red.izd-va; RODIONOVA, V.M., tekhn.red.

[The economics of construction] Ekonomika stroitel'stva.  
[By] I.P.Sytnik i dr. Moskva, Gosstroizdat, 1963. 229 p.  
(MIRA 17:1)

IONAS, B.Ya.; GIROVSKIY, V.F., retsenzent; LEYKIN, B.P., nauchnyy red.;  
TARAYEVA, Ye.K., red. izd-va; BOROVNEV, N.K., tekhn.red.

[Economics of the construction industry] Ekonomika stroitel'stva.  
Moskva, Gosstroizdat, 1963. 242 p. (MIRA 16:6)  
(Construction industry)

MALYUGIN, V.I.; YEFREMOV, S.A., kand. tekhn. nauk; REYNIN, S.N.;  
BUKSETEN, D.I.; DUNAYEV, Ye.S.; KIL', A.Kh.; KRAKOVICH,  
A.A.; FILIMONOV, S.Ye.; PETROV, I.A., prof., doktor  
tekhn. nauk, nauchn. red.; GIROVSKIY, V.F., prof., doktor  
ekon. nauk, nauchn. red.; GERASIMOVA, G.S., red. izd-va;  
GOL'BERG, T.M., tekhn. red.

[Manual for estimated costs in construction] Spravochnik  
po smetnomu delu v stroitel'stve. Moskva, Gosstroizdat,  
Pt.2. 1963. 462 p. (MIRA 16:12)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-  
issledovatel'skiy institut ekonomiki stroitel'stva.  
(Construction industry—Costs)

BERZON, O.F., inzh.; BUKSHEYN, D.I., inzh.; KUPEMAN, Ya.M.,  
kand. ekon. nauk; RUDNEK, I.B., kand. tekhn.nauk;  
GORBUSHIN, P.B., red.; ZHUKOVSKIY, Ye.S., nauchn. red.;  
GIROVSKIY, V.F., glav. red. serii; BOGINA, S.L., red.;  
GOL'BERG, T.M., tekhn.red.

[Handbook on material and machinery supply for construction  
units] Spravochnoe posobie po material'no-tekhnicheskomu  
snabzheniiu stroitel'nykh organizatsii. Pod obshehei red.  
P.B.Gorbushina i D.I.Bukshteina. Moskva, Gosstroizdat,  
1963. 607 p. (MIRA 17:1)

1. Moscow. Nauchno-issledovatel'skiy institut ekonomiki  
stroitel'stva. 2. Direktor Nauchno-issledovatel'skogo insti-  
tuta ekonomiki stroitel'stva i chlen-korrespondent Akademii  
stroitel'stva i arkhitektury (for Gorbushin). 3. Rukovoditel'  
otdela normirovaniya material'nykh resursov i tsen na stroi-  
tel'nye konstruksii nauchno-issledovatel'skogo instituta  
ekonomiki stroitel'stva (for Bukshteyn).

(Construction industry--Management)

MALYUGIN, V.I.; YEFREMOV, S.A., kand. tekhn. nauk; REYNIN, S.N.;  
TURIANSKIY, M.A.; ARISTOV, S.S.; BUKSHTEYN, D.I.; LUNAYEV,  
Ye.S.; GIROVSKIY, V.F., glav. red.; USPENSKIY, V.V., zam.  
glav. red.; BASHINSKIY, S.V., red. [deceased]; GOREUSHIN,  
P.B., red.; GUREVICH, M.S., red.; LEYKIN, B.P., red.;  
MITIN, S.A., red.; GLAZUNOVA, Z.M., red. izd-va; GERASIMOVA,  
G.S., red. izd-va; MOCHALINA, Z.S., tekhn. red.

[Manual on estimates in the construction industry] Spra-  
vochnik po smetnomu delu v stroitel'stve. Moskva, Stroi-  
izdat. Pt.1. 2 izd., dop. i perer. 1964. 521 p.

(MIRA 17:3)

1. Moscow. Nauchno-issledovatel'skiy institut ekonomiki  
stroitel'stva.

GIRS, A. A.

GIRS, A. A., and T. V. NIKOLAZA.

Rukovodstvo po proizvodstvu i obrabotke aerologicheskikh nabliudenii na poliarnykh stantsiiakh. Moskva, Izd-vo Glavsevmorputi, 1944. 252 p., illus., tables, diagrs. (Leningrad. Arkticheskii nauchno-issledovatel'skii institut. Seriya: Posobiia i rukovodstva, no. 2)

Title tr.: Handbook on aerological observations at polar stations.

For abstract see The Arctic Institute of North American. Arctic Bibliography, 1953, v. 1, item 5770.

G600.L423 no. 2

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

GIRS, A. A., compiler.

Rukovodstvo po radiosondirovaniu atmosfery dlia aerologicheskikh stantsii Artiki. Moskva, Izd-vo Glavsevmorputi, 1946. 252 p., illus., tables, diagrs. (Leningrad. Arkticheskii nauchno-issledovatel'skii institut. Seriya: Posobiia i rukovodstva, no. 16)

Title tr.: Handbook on radiosonde operations at arctic aerological stations.

For abstract see the Arctic Institute of North America. Arctic Bibliography, 1953, v. 1, item 5769.

G600.L423 no. 16

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

GIRS, A. A.

USSR/Meteorology - Atmosphere, May/Jun 48  
Circulation

Long-Range Forecasting

"Problem of Studying the Main Forms of Atmospheric  
Circulation," A. A. Girs

"Meteorol i Gidrol" No 3, pp 9-21

Vangengeym had previously studied atmospheric processes on daily synoptic maps for 42-yr series and reduced these to 22 typical-circulation systems.

He later united these 22 systems into three types: W (west), E (east), and C (meridional). He studied these types for the winter season and established

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USSR/Meteorology - Atmosphere, May/Jun 48  
Circulation (Contd)

laws of their succession. These laws were later established for other seasons, enabling wind and temperature to be forecast 4-5 months in advance with good reliability. However, all these conclusions were drawn from only surface maps. Girs re-examines transformations of the three types on 500-millibar surface maps. Finds the laws established by Vangengeym for succession of types also describe transformation processes in "height deformation field," which explains effectiveness of these laws in forecasting. Submitted 18 Mar 48.

162184



GIRG, A.A.

Peculiarities of the Planetary Altitudinal Frontal Zone That Are Proper to the Principal Forms of Circulation. Meteorol. i gidrologiya, No 4, 1953, pp 23-26

The author describes in accordance with foreign sources the peculiarities of the planetary altitudinal frontal zone, as he calls the jet stream. By examples he shows that by studying the transformation of one form of atmospheric circulation into another (according to charts for the surface 500 millibars) one can indicate not only the regions of disposition of the planetary altitudinal frontal zone, but also the direction of its succeeding shift. The author considers that further study of the indicated zone should be expeditiously conducted in connection with the forms of atmospheric circulation and with their transformations in the hemisphere. (RZhGeol, No 5, 1954)

SO: Sum. No. 568, 6 Jul 55

*Arctic Science Inst. Leningrad*

G IRS, A. A.

Study of the general atmospheric circulation. Izv. AN SSSR. Ser.  
geog. no. 4:16-28 J1-Ag'55. (MIRA 8:10)

1. Arkticheskiy nauchno-issledovatel'skiy institut  
(Atmosphere)

GIRS, A.A.

Some characteristics of synoptic processes in the Arctic and their  
relation with general atmospheric circulation. Trudy GGO no.56:  
36-46 '56. (MIRA 15:6)

(Arctic regions--Meteorology)

GIRS. ~~SECRET~~

Transformation and analysis of forms of atmospheric circulation.  
Meteor. i gidrol. no. 3:12-20 Mr '56. (MIRA 9:7)  
(Atmosphere)

GIRS, A.A.

Long-range transformations of forms of atmospheric circulation  
and changes in solar activity. Meteor. i gidrol. no.10:3-13

0 '56.

(MLRA 9:12)

(Atmosphere) (Sunspots)

GIRS, A. A.

"Perennial transformations of forms of the atmospheric circulation  
and changes of meteorological and ice conditions in the Arctic," paper  
submitted at International Assoc. of Meteorology Meetings, Toronto, Canada,  
3-14 Sep 57

G-3,800, 327

GERS, A.A.

Epoch-making transformation of forms of atmospheric circulation and  
Caspian Sea level fluctuations. Izv. AN SSSR, Ser. geog. no. 1:102-108  
Ja-F '57. (MLRA 10:4)

1. Arkticheskiy nauchno-issledovatel'skiy institut.  
(Caspian Sea) (Atmosphere)

GIRS, A.A., doktor geogr. nauk

Interrelation between the Arctic and Antarctic atmospheric  
circulation. Inform. biul. Sov. antarkt. eksp. no.2:21-24  
'58. (MIRA 12:8)

1.Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy  
institut.  
(Arctic regions--Atmosphere) (Antarctic regions--Atmosphere)



GIRS, A.A.

AUTHOR: Mostakhov, S. Ye.

SV 30-58-7-38/49

TITLE: Dynamic and Thermal Interaction of the Atmosphere and Hydrosphere (Dinamicheskoye i teplovoye vzaimodeystviye atmo- i gidrosfery) Transactions of the Scientific Conference in Leningrad (Nauchnaya konferentsiya v Leningrade)

PERIODICAL: Vestnik Akademii nauk SSSR, 1959, Nr 7, pp. 128 - 129 (USSR)

ABSTRACT: This conference was held March 26<sup>th</sup> - March 29<sup>th</sup> at the invitation of the Committee of Oceanography attached to the Presidium of the AS USSR and of the Hydrometeorological Institute (Okeanograficheskaya Komissiya pri Prezidiume Akademii nauk SSSR i Gidrometeorologicheskii institut). It dealt with the problem of dynamic and thermal interaction of the atmosphere and hydrosphere in the northern part of the Atlantic Ocean (Atlanticheskii okean); and with the evaluation of the results of expedition work obtained so far as well as with a precise explanation of the research work to be carried out in future. These problems were included in the program of the International Geophysical Year. The following reports were heard:

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1) A.A.Girs on long term variations of the atmospheric circulation

Dynamic and Thermal Interaction of the Atmosphere and Hydrosphere. Transactions of the Scientific Conference in Leningrad 30-58-7-38/49

of the northern hemisphere.

2) I.M.Soskin on fluctuations of the activity of the sun as a basis of ~~extra~~ long-term forecasts of hydrological conditions of the ocean.

3) D.A.Drogaytsev on the long-term variations in the transmission of heat across the meridian in the atmosphere as basis for forecasts of water temperature on the meridian of Kola (Kol'skiy meridian).

4) K.N.Fedorov on the correlation between variations of the general circulation in the ocean and in the atmosphere in the North Atlantic.

5) A.I.Sorkina on the method of designing wind zone charts of the seas and oceans.

6) M.A.Valerianova on attempts of classification of the pressure fields above the North Atlantic for the purpose of computation of the currents and of the ice drift.

The evidence provided by the investigation of the current system in the North Atlantic are not sufficient for the solution of many problems of hydrodynamics. They are not far enough advanced for a practical utilization. According to the opinion of the

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participants in the conference groups of young experts must be formed for the purpose of intensification of research work in this field. Systematic long-term observations of the currents carried out from ships must be organized. Further reports were delivered by:

- 7) D.L.Laykhtman on the theory of the wind drift of ice.
  - 8) A.I.Fel'zenbaum on the computation of the stabilized ice drift in the Arctic Basin.
  - 9) V.V.Timonov on the experimental investigation of the current and the state of the ice observed from aeroplanes.
- Interesting results were obtained concerning the thermal interaction between ocean and atmosphere as well as the balance of radiation and heat in the northern part of the Atlantic Ocean, of the Barents Sea (Barentsovo more) and the Norwegian Sea (Norvezhskoye more). A great disadvantage is the lack of computations of the horizontal turbulent heat exchange as well as the lack of an analysis of the advective heat transmission. The participants in the conference pointed out considerable differences in the method of computation as carried out by different

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Dynamic and Thermal Interaction of the Atmosphere and Hydrosphere. Transactions of the Scientific Conference in Leningrad

institutes; thus the results obtained are not completely comparable. As a conclusion informations were given on the progress and the plan of operation of the work of the interdepartmental expedition into the Atlantic Ocean and the coasts of Norway and Greenland (Mezhdunarodnaya ekspeditsiya Atlanticheskogo okeana, Norvezhskogo i Grenlandskogo morya). The Member of the Academy of Sciences, USSR, V.V. Shuleykin reported on research work carried out in 1957 in the course of a voyage on the ship "Sedov" in the Atlantic Ocean.

SOV/50-58-12-4/20

3(7)

AUTHOR: Girs, A. A.

TITLE: Peculiarities of Long-Period Fluctuations of Atmospheric Circulation in the Individual Months of the Year (Obsobennosti mnogoletnikh kolebaniy tsirkulyatsii atmosfery v otdel'nykh mesyatsakh goda)

PERIODICAL: Meteorologiya i gidrologiya, 1958, Nr 12, pp 23-28 (USSR)

ABSTRACT: In the course of the last 65 years long periods of time could be observed during which the processes of one (or two) types of circulation (types W, C, E, according to G. Ya. Vangengeym) were developed supernormally while others were weakened. Such periods are also called "epochs." The following epochs were observed:  
1891-1899    1900-1928    1929-1939    1940-1948    1949-1957.  
W + C            W            E            C            E + C

These epochs can be expressed by constructing the integral curves of the monthly deviations from the standard of the number of days which adopt any form. The formation of an epoch and the development of the types, W, C, E generally is connected with long-period fluctuations of the solar activity, above all with its 80-90 and 11-year cycles (Ref 5). The type of circulation which is observed in the corresponding epoch is

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Peculiarities of Long-Period Fluctuations of  
Atmospheric Circulation in the Individual Months of the Year

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irregularly distributed during the months of the individual years and concentrates on one or two seasons. Thus, by forecasting a type of an epoch also the seasons may be predicted in which the peculiarities of the epochs of circulation are especially distinct. This is important to seasonal forecasts in certain years. This problem is to be discussed in detail in the present work. E.g. the peculiarities of the types W, C, E, in February of each year of the epoch can be determined from the diagrams (Fig 1) which express the deviation from the standard number of the Vol'f figures in the individual epochs. For this reason the author constructed integral curves of the monthly anomalies of the number of days with types W, C, E for each month (Figs 2-4). On the basis of these curves the author expresses the following additional considerations on the character of circulation of the forthcoming epoch: Since in the preceding epoch (1929-1957) the processes of the W-type were the most weakened during the warm season, while the "germs" of the processes of the new epoch could be observed in autumn and winter it could logically be assumed that the W-type of the coming epoch will develop anomalously

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Peculiarities of Long-Period Fluctuations of      SOV/50-58-12-4/2C  
Atmospheric Circulation in the Individual Months of the Year

in spring and summer, and that it will be weakened, however, in autumn and especially in winter. In winter and autumn the C- and E- types will apparently be developed normally (Fig 1). At present no answer can be given to the question why the epochs in the development of the W, C, E types in the individual months of the year are not expressed in the same way. The peculiarities of the course of the year of the W, C, E types may be connected with solar activity, i.e. with the action of the earth on the sun (Ref 2). It can be seen from table 1 (values-"standards" - collected by Vol'f in the course of many years and their values in different epochs) that the curve of the anomalies of the course of the year of the Vol'f figures and the curve of the anomalies of the type of atmospheric processes (E, 1929-1939), which developed in the corresponding epoch, agree to a sufficient extent. This, however, does not hold for epochs with combined circulation. In this case more complicated dependences are acting which should be the object of further investigations. There are 4 figures, 1 table, and 6 Soviet references.

Card 3/3

GIRS, A. A.

Long-term weather forecasts for the Arctic and a method of preparing them. Mor.flot 19 no.3:18-20 Mr '59. (MIRA 12:4)

1. Rukovoditel' otдела dolgosrochnykh prognozov pogody Arkticheskogo i Antarkticheskogo nauchno-issledovatel'skogo instituta.  
(Arctic regions--Weather forecasting)





SOV/50-59-8-17/19

3(7)

AUTHOR:

Girs, A. A.

TITLE:

Yu. B. Khrabrov "Method of Compiling Weather Forecasts for 3-7 Days". Gidrometeoizdat Publishing House, Leningrad, 1959  
(Yu. B. Khrabrov "Metodika sostavleniya prognozov pogody na 3-7 dney". Gidrometeoizdat. L. 1959)

PERIODICAL:

Meteorologiya i gidrologiya, 1959, Nr 8, pp 47-50 (USSR)

ABSTRACT:

Although the School of B. P. Mul'tanovskiy has worked 40 years on the problem of long-termed forecasts given at short notice, the quality of the forecasts based on the school's methods, does not meet established practical standards. The latest investigations for improving these methods were carried out at the Tsentral'nyy institut prognozov (Central Institute of Forecasts) and in various organizations of the GUGMS. A highly active part was played by Yu. B. Khrabrov who found a number of rules in the development of macroprocesses in 1956-57. This enabled him to work out a new, better, and physically better founded, method of weather forecasts for 3-7 days. It is put forward in the book discussed here. Khrabrov's method is based on the investigation of the character of processes which

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Yu. B. Khrabrov "Method of Compiling Weather Forecasts for 3-7 Days".  
Gidrometeoizdat Publishing House, Leningrad, 1959

are observed during the synoptic periods of Mul'tanovskiy. But in the definition of this term, the author starts from considering the state and the evolution of the planetary altitude frontal zone. The author's principal attention is directed to the evolution of the processes within the synoptic processes; he uses the conclusions of the vortex theory. The author shows that during a synoptic period a homogeneous macroprocess is not always observed. The latter often ends before the synoptic period. Khrabrov introduces the term of a homogeneous macrosynoptic process within which the planetary altitude frontal zone undergoes a certain evolution. A short table of contents of individual chapters, and some small shortcomings, are indicated. Paragraph 4 of the 2nd chapter describes the characteristics of the development of processes of synoptic periods in East Siberia and the Soviet Far East, which were obtained in the papers by L. F. Noshchenko, A. M. Glybovets, and L. I. Kuzmishcheva on the basis of Khrabrov's method.

PLATE I BOOK EXPLANATION

Longitudinal, Anticlockwise, and Clockwise

Probing Arrows: A. Horizontal; B. Vertical; C. Diagonal

Arrows: D. Clockwise; E. Anticlockwise; F. Diagonal

Arrows: G. Clockwise; H. Anticlockwise; I. Diagonal

Arrows: J. Clockwise; K. Anticlockwise; L. Diagonal

Arrows: M. Clockwise; N. Anticlockwise; O. Diagonal

Arrows: P. Clockwise; Q. Anticlockwise; R. Diagonal

Arrows: S. Clockwise; T. Anticlockwise; U. Diagonal

Arrows: V. Clockwise; W. Anticlockwise; X. Diagonal

Arrows: Y. Clockwise; Z. Anticlockwise; AA. Diagonal

Arrows: AB. Clockwise; AC. Anticlockwise; AD. Diagonal

Arrows: AE. Clockwise; AF. Anticlockwise; AG. Diagonal

Arrows: AH. Clockwise; AI. Anticlockwise; AJ. Diagonal

Arrows: AK. Clockwise; AL. Anticlockwise; AM. Diagonal

Arrows: AN. Clockwise; AO. Anticlockwise; AP. Diagonal

Arrows: AQ. Clockwise; AR. Anticlockwise; AS. Diagonal

Arrows: AT. Clockwise; AU. Anticlockwise; AV. Diagonal

Arrows: AW. Clockwise; AX. Anticlockwise; AY. Diagonal

Arrows: AZ. Clockwise; BA. Anticlockwise; BB. Diagonal

Arrows: BC. Clockwise; BD. Anticlockwise; BE. Diagonal

Arrows: BF. Clockwise; BG. Anticlockwise; BH. Diagonal

Arrows: BI. Clockwise; BJ. Anticlockwise; BK. Diagonal

Arrows: BL. Clockwise; BM. Anticlockwise; BN. Diagonal

Arrows: BO. Clockwise; BP. Anticlockwise; BQ. Diagonal

Arrows: BR. Clockwise; BS. Anticlockwise; BT. Diagonal

Arrows: BU. Clockwise; BV. Anticlockwise; BW. Diagonal

Arrows: BX. Clockwise; BY. Anticlockwise; BZ. Diagonal

Arrows: CA. Clockwise; CB. Anticlockwise; CC. Diagonal

Arrows: CD. Clockwise; CE. Anticlockwise; CF. Diagonal

Arrows: CG. Clockwise; CH. Anticlockwise; CI. Diagonal

Arrows: CJ. Clockwise; CK. Anticlockwise; CL. Diagonal

Arrows: CM. Clockwise; CN. Anticlockwise; CO. Diagonal

Arrows: CP. Clockwise; CQ. Anticlockwise; CR. Diagonal

Arrows: CS. Clockwise; CT. Anticlockwise; CU. Diagonal

Arrows: CV. Clockwise; CW. Anticlockwise; CX. Diagonal

Arrows: CY. Clockwise; CZ. Anticlockwise; CA. Diagonal

Arrows: CB. Clockwise; CC. Anticlockwise; CD. Diagonal

CLRS, H.H.

Summary, A.A. Total Area and Number of Islands of French-Over Land	105
Legend, A.A. The Problem of Observation of Island Changes in the Coastline	106
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Summary, J.J. Method of Processing Oceanographic Observations	110
Summary, J.J. Finding of Surface Currents on French Island and the Importance of the Results	110
Summary, J.J. The Importance of the Results	110

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Summary, J.J. The Voyage of the Oceanographic Expedition to the French Island in 1959	105
Summary, J.J. High-Altitude Aerial Expedition of 1959	105

REMARKS: Library of Congress

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24/m/100  
9-7-60

GIRS, Aleksandr Aleksandrovich. Primalni uchastiye: GUROV, V.P., dotsent; KHRABROV, Yu.B., kand.fiziko-matem.nauk, POKHOVSKAYA, T.V., otv.red.; VLASOVA, Yu.V., red.; BRAYNINA, M.I., tekhn.red.

[Fundamentals of long-range weather forecasting] Osnovy dolgo-srochnykh prognozov pogody. Leningrad, Gidrometsor, izd-vo, 1960. 559 p. (MIRA 13:7)

1. Tsentral'nyy institut prognozov (for Khrabrov). (Weather forecasting)

GIRS, A.A.

Type characteristics of principal variants of atmospheric  
circulation patterns during the warm season of the year.  
Probl.Arkt.i Antarkt. no.2:43-48 '60. (MIRA 13:6)  
(Atmosphere)

S/050/60/000/008/003/004/XX  
B012/B063

AUTHOR: Girs, A. A.

TITLE: Some Characteristic Features of the Periods of the Development of Atmospheric Circulation ✓

PERIODICAL: Meteorologiya i gidrologiya, 1960, No. 8, pp. 29 - 33

TEXT: According to G. Ya. Vangengeym (Ref. 1), macrosynoptic processes are classified proceeding from the processes observed in the first sector of the Northern hemisphere and in the Atlantic-European sector. Observations have, however, shown that, if several months were chosen in which, for examples, W-processes were observed in the first sector, different processes occurred simultaneously in the second sector (Pacific-American sector). The present paper gives an explanation of this phenomenon: W-, C-, and E-processes sometimes remain in the various stages of their development. In 1951, the author set up a classification of the processes observed between 1900 and 1950 in the second sector (Refs. 9 and 10). He found that these processes may also be classified into three types (Refs. 4-6): a zonal (Z) and two meridional ( $M_1$  and  $M_2$ ) processes. It is

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Some Characteristic Features of the Periods S/050/60/000/008/003/004/XX  
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shown that, if the character of the processes occurring in the Pacific-American sector are taken into account, nine macroprocesses may be distinguished in the Northern hemisphere:  $W_z$ ,  $W_{m1}$ ,  $W_{m2}$ ;  $E_z$ ,  $E_{m1}$ ,  $E_{m2}$ ;  $C_z$ ,  $C_{m1}$ ,  $C_{m2}$ . These may be regarded as varieties of the principal forms of atmospheric circulation, W-, C-, and E-processes (W - Western, E - Eastern, C - meridional circulation). The mean characteristics of the baric and thermal fields of each of these varieties on the Northern hemisphere were given by the author in Refs. 5 and 6. A detailed description of the synoptic processes involved in these varieties is given in Refs. 1 and 2. Now, the author studies the causes which lead to the development of these varieties. He shows that the character of the varieties of the form concerned depends on the sequence of long-time transformations and on the stage of these transformations at which the macroprocess of the respective form was "fixed". In this connection it is noted that the typical maps showing the temperature and pressure anomalies of the varieties of the respective form may considerably differ from the typical maps of this form which do not take its varieties into account. This difference becomes particularly manifest in the areas of the second



Some Characteristic Features of the Periods S/050/60/000/008/003/004/XX  
of the Development of Atmospheric Circulation BO12/BO63

sector of the Northern hemisphere (Refs. 5 and 6). Furthermore, the author studied the varieties of the form of circulation during several years and also the varieties of other forms occurring in this period. These studies are described, and their results are diagrammatically represented in Figs. 1-3. These diagrams contain the integral curves of all nine varieties and those of the corresponding curves which have been constructed in Refs. 2 and 4 without considering the varieties. The diagrams cover the period from 1902 to 1957. Finally, the author studies the relationship between the changes observed in several years in the frequency of various forms (W, C, E) and the <sup>10</sup>W solar activity. He has shown in Ref. 4 that in the atmosphere the W-processes are activated during the general drop of the integral curve of the Wolf numbers (1900-1935), whereas the E- and C-processes are activated during the general rise (1936-1957). Fig. 3 shows the integral curve of the Wolf numbers. A comparison with the various varieties of C indicates that the integral curve of the Wolf numbers is in best agreement with C<sub>m2</sub>. Thus, it is shown that the C<sub>m2</sub> macroprocess is observed on the Northern hemisphere during the general rise of the integral curve of the Wolf numbers. It is noted that the relationship between the

Some Characteristic Features of the Periods S/050/60/000/008/003/004/XX  
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solar activity and the varieties of the two other forms (W and E) has not  
yet been fully disclosed. There are 3 figures, 1 table, and 11 Soviet  
references.

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A053/A130

3.5000

AUTHOR: Girs, A.A.

TITLE: Reasons and manifestations of multiannual circulation variations of the atmosphere

PERIODICAL: Izvestiya Akademii nauk SSSR, seriya geograficheskaya, no. 6, 1960, 10 - 17

TEXT: It has been demonstrated that there have been some distinctive periods in the development of atmospheric circulation, seen in general from 1891 to 1958: from 1891 to 1899 - a period of abnormal development of western (W) and meridional (C) forms of atmospheric circulation; from 1900 to 1928 - a period of abnormal development of western (W) forms of circulation; from 1929 to 1939 - a period of eastern circulation (E); from 1940 to 1948 - a period of meridional circulation (C) and from 1949 to 1959 an abnormal development of eastern and meridional circulation forms (E + C). Therefore, the development of atmospheric circulation in general for the past 68 years can be described as a process of transformations of its basic forms W, C, E. Each change of period was accompanied by climatic changes in the northern hemisphere. The genesis of the different

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periods should be attributed to reciprocal action of inner and outer factors. The former are composed of irregular distribution of heat energies of land and water, of the rotation of the earth, of cyclonic action in the troposphere, etc. The outer factors consist mainly of solar activities, especially sunspots, characterized by Wolf numbers. Under the influence of the above factors atmospheric processes are constantly changing. These changes manifest themselves in the alteration of the thermobaric structure of the atmosphere, increased thermic contrasts between air of higher and lower altitudes. Difference in temperature between land and water influences thermic contrasts of the atmosphere just the same as atmospheric processes change the thermal state of land and water. This partly explains the reasons for transformation of such process forms as W, C and E. If the leading role of influence is maintained by one of the factors for a long time, that period will be marked by extraordinary recurrence of certain process forms, as outlined above. An explosion of solar activity causes a meridional process in the Pacific, which results in the troposphere of the western part of the USA in an upper peak and over the Aleutian Islands in an upper trough ( $M_2$  - type of process). If up to that time there existed zonal circulation over the hemisphere, the fact of a disturbance taking place is going to influence the character of atmospheric processes. According to Namias such disturbances communicate

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themselves to the Atlantic in 5 - 7 days, resulting here also in meridional processes. In accordance with an analysis made by the author, an  $M_2$ -type disturbance over the Pacific (2nd American sector) will in most cases bring about a disturbance in the Atlantic Eurasian sector, taking the form E. If on the second sector an upper peak is extending over the Aleutian Islands, and an upper trough on the western part of USA ( $M_1$ ), the meridional in the first sector will be of form C. The same connection exists between abnormal development of process forms C and W during certain periods. The author has found that the period of fall of the integral curve of solar activity (Wolf number) coincides with abnormal developments of processes of western circulation (W), whereas the rise of the integral curve of Wolf numbers results in E + C forms of processes. The recurrence of forms of circulation is irregular and attains its maximum during one or two seasons. Counting the average multiannual values (206 years) of Wolf numbers for each month the amplitude of the annual variations equaled 4, whereas the count of the average Wolf numbers per month for the different circulatory periods gave the following result: period W + C (1891 - 1899) the amplitude of annual changes of Wolf numbers equaled 12.8; period E (1929 - 1939) 19.9; period C (1940 - 1948) 40.2; period E + C (1949 - 1956) 16.3. Two graphs enclosed here show the deviation from the normal number of days with forms W, C, E and from normal Wolf num-

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bers in different months for the period E + C (1949 - 1957) and for the period E (1929 - 1939). From these can be seen that with the exception of the month of March the value of Wolf numbers exceeded the norm (above the average of 206 years). In this connection the recurrence of processes of form W was below the norm and of form E above the norm, which fully agrees with the observation concerning the fall and rise of the integral curve of the Wolf numbers. In other words period E (1929 - 1939) manifested itself particularly during those months, in which the positive anomaly of the Wolf numbers had the highest value. In those months, in which solar activity was at low ebb (III, X, IX), process forms W developed, while process forms E were on the decline. Such a concordance between the Wolf numbers and curves W, C, E is not always to be observed, which is quite natural, since the transformation of process forms depends not only on outer but also on inner factors as stated above. Enclosure no. 3 shows the differences between extreme average monthly values (a) and annual values (b) of Wolf numbers over a period of 209 years from 1749 - 1958. As can be seen, the difference in values changes from year to year with a certain recurrent regularity over periods of 11, 80 and 90 years, reflecting solar activities and showing a marked increase of differences at the rise of cycle and abrupt decline at the fall of cycle, while the maximum values of differences coincide with peaks of the curve of Wolf numbers. The

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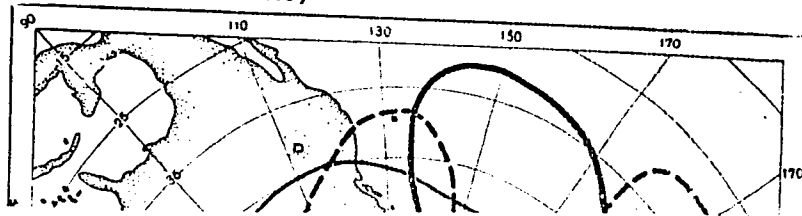
S. 010/60/000/006/002/004  
A053/A130

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same regularity can be seen from curve b representing the annual values. The author concludes that in studying the relationship which exists between solar activities and atmospheric processes there should not only be considered multiannual (11 and 80 - 90 years cycles) changes of solar activity, but also monthly changes. These have a great amplitude, are very real and regularly connected with the more lasting changes of solar activity. In considering these it is possible to find an explanation to the monthly transformations of forms W, C, E, which is important for the sake of an improved seasonal weather forecast, as well as of extended super-longterm hydrometeorological forecasts. There are 4 figures and 11 references: 10 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Arkticheskiy i Antarkticheskiy nauchno issledovatel'skiy 'institut Glavsevmorputi (Arctic and Antarctic Scientific Research Institute of Main Northern Sea Route)

FIG-1



3,5140 (1041)

29877  
S/169/61/000/009/031/056  
D228/D304

AUTHOR: Girs, A. A.

TITLE: The study of the Arctic's atmospheric circulation and the solution of the problem of long-term meteorologic forecasts

PERIODICAL: Referativnyy zhurnal. Geofizika, no. 9, 1961, 42, abstract 9B297 (V sb. Probl. Arktiki i Antarktiki, no. 4, L., Morsk. transport, 1960, 52-63)

TEXT: The development of investigations of atmospheric processes in the Arctic has shown that it is impossible to reduce them to a constantly existing anticyclone. They are extremely diverse, and in their mechanism they are largely analogous to the synoptic processes of temperate latitudes. It follows that for long-term weather forecasts the processes observed in the Arctic must be studied in close connection with those in the remaining areas of the northern hemisphere. G. Ya. Vangengeym has produced a classification of the processes in the Arctic against the

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The study of the...

background of those of the hemisphere and has established three forms of atmospheric circulation: western (W), eastern (E), and meridional (C). The patterns of the change of these forms and their related weather conditions has served as the basis for the method of seasonal forecasts in the Arctic. The processes and weather conditions in the Arctic may essentially differ from the climatologic picture. For example, when there is the W form of circulation over the hemisphere, anticyclones are developed in the Arctic and a negative air-temperature anomaly is formed, while at the time of the E form over the hemisphere the transfer of warm air-masses takes place in the Arctic. The method of advanced (4 - 5 months) long-term forecasting for the Arctic is based on the calculation of the patterns of the seasonal preferences of forms W, C, and E and the related changes in the weather conditions in the Arctic. The method is founded on the selection of homologs. The method of weather forecasts for shorter periods is based on the preference patterns of elementary synoptic processes--exposed against the background of the development of forms W, C, and E--and on the use of static data about the preferences of different types of baric field in the Arctic. Patterns for the multi-year

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transformation of forms W, C, and E, which may serve as the basis of extra-long-term hydrometeorologic forecasts, have been established in recent years. The multi-year changes in the frequency of the processes of different forms are depicted as integral curves. It is established that the activation of the processes of form W takes place when the Wolf numbers decrease; the processes of forms E and C are activated in the period of the increase of the Wolf numbers. If the prevailing form of circulation in the coming epoch can be predicted, it may be possible to express a number of prognostic reports on hydrometeorologic processes by using the standard maps of these forms. [Abstracter's note: Complete translation.]

251108

3/169/61/000/007/062/104

A006/A101

3,5133

AUTHOR

Girs, A.A.

TITLE:

On the causes and development of fluctuations of atmospheric circulation during several years

PERIODICAL:

Referativnyy zhurnal. Geofizika, no. 7, 1961, 54-55, abstract 7B355  
("Izv. AN SSSR, Ser. geogr.", 1960, no. 6, 10 - 17)

TEXT:

Beginning with 1891 until the present several circulation periods can be singled out. Thus the epoch from 1891 to 1899 was characterized by the abnormal development of Western (W) and meridional (C) forms of atmospheric circulation (according to G.Ya. Vangengeym's classification). This was the epoch of combined W + C. From 1900 to 1928 an abnormal development of W-form processes took place which were then replaced (1929 - 1939) by processes of eastern form (E). From 1940 to 1948 an epoch of meridional circulation (C) was observed and presently (1949 - 1959) an abnormal development of E and C processes takes place. Intraannual transformations of W, C, and E forms depend to a considerable degree on the peculiarities of intraannual changes of solar activity. An analysis of the mean monthly Wolf numbers from 1749 to 1958 has shown that

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A006/A101

their maximum and least values may be observed at the same recurrence during most of the months in a year. The Wolf numbers and their annual differences (amplitudes) show a distinctly marked 11-year cycle. Within a year there are months with very low solar activity (development of W-form processes) and with a very high activity (E or C processes). During the years of the 11 year cycle drop, the intra-annual differences decrease considerably. Therefore the circulation background and, consequently, weather conditions are relatively more uniform.

N. Zverev

[Abstracter's note: Complete translation]

GIRS, A.A.

State of some atmospheric activity centers of the Northern Hemisphere during different circulation epochs. Meteor. i gidrol.  
no.10:25-28 0 '61. (MIRA 14:9)

(Atmosphere)

3.5140 (1041)

31145

S/169/62/000/001/057/083  
D228/D302

AUTHOR: Girs, A. A.

TITLE: Forecasting the anomalous development of various forms of the northern hemisphere's atmospheric circulation and the pressure and temperature anomalies associated with them in the Arctic

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 1, 1962, 55, abstract 1B355 (Tr. Arkt. i antarkt. n.-i. in-ta, 240, 1961, 24-32)

TEXT: Cold and warm months, during which the stable (for more than 20 days) development of the processes of each variety of the main circulation forms was noted, were chosen in order to study the conditions under which the anomalous development of different varieties of the forms E, W, and C takes place. A study was made of the macroprocesses observed during the five months prior to the case with a given variety. In almost all instances of a given variety the macroprocesses bore an analogous character in the five-

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S/169/62/000/001/057/083  
D228/D302

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preceding months. This permitted the construction of average group graphs for the change in the frequency of forms W, C, and E (in terms of the "normal" number of days in each month) during the five months prior to each variety. Maps of the distribution of pressure and temperature anomalies on the original month of the forecast and maps of the integral curves of the daily pressure anomalies at 10 stations in the northern hemisphere were compared for the group of years entering into a given variety. An analogy in the distribution of the largest main anomalies exists in almost all cases. This permitted the construction of maps of the percentage distributional frequency of such anomalies, on the basis of which it is possible to compile the forecast of an anomaly. The maps and graphs prepared during the research may be used, too, for other forms of forecasting. 7 references. / Abstractor's note: Complete translation. 7

YE DU-CHZHEN [Yeh Tu-cheng]; CHZHU BAO-CHZHEN' [Chu Pao-chen];  
BERIUTSKIY, A.F. [translator]; GIRS, A.A., red.; PROTOPOPOV,  
V.S., red.; SOLOVEYCHIK, A.A., tekhn. red.

[Some important problems in the general circulation of the  
atmosphere] Nekotorye vazhneishie voprosy obshchei tsirku-  
liatsii atmosfery. Pod red. A.A.Girsa. Leningrad, Gidro-  
meteor. izd-vo, 1961. 239 p. (MIRA 15:3)  
(Atmosphere)



Wash

S/169/62/000/003/074/098  
D228/D301

3,5000

AUTHORS: Girs, A. A. and Polysalov, N. F.

TITLE: Peculiarities in the distribution of pressure anomalies in the Arctic in different circulation epochs

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 3, 1962, 46, abstract 3B351 (Tr. Arkt. i antarkt. n.-i. in-ta, 240, 1961, 147-152)

TEXT: Epochs, when the process of one or two forms of circulation (W, C, and E according to G. Ya. Vangengeym) develops anomalously, are distinguishable in the development of the atmosphere's general circulation. The character of the epochal transformations of circulation forms is not the same in different months. The distribution of pressure anomalies for October is considered. The integral curves of multi-year changes in the frequency of the main varieties of forms in October enabled the authors to clarify in what varieties the processes of different forms appeared in different circulation

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Peculiarities in the ...

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D228/D301

epochs. Epoch E was displayed most strongly from 1900 to 1920 as the  $E_3$  variety; epoch W appeared most often from 1924 to 1936 as the variety  $W_3$  and  $W_{M1}$ ; epoch C was exhibited most intensely from 1937 to 1947 as the variety  $C_3$ ,  $C_{M1}$  and  $C_{M2}$ . Maps of the probabilities of positive pressure anomalies and maps of the mean monthly pressure were constructed for these epochs. The comparison of these maps discloses substantial differences in various circulation epochs. The arctic anticyclone in different circulation epochs is located in various places. In the epoch of easterly circulation positive anomalies, whose probability is 88%, are observed above the Arctic; in the epoch of westerly circulation the positive anomaly region is concentrated over the northern parts of continents, and negative pressure anomalies are noted in the Arctic in the epoch of meridional circulation. Thus, the distribution of pressure anomalies, which depends essentially on the epochal background, should be taken into account when selecting circulation homologs and preparing forecasts for October. 7 references. [Abstracter's note: Complete translation.]

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GIRS, A.A.

Forecasting the abnormal development of various atmospheric  
circulation patterns of the Northern Hemisphere and associated  
pressure and temperature anomalies in the Arctic. Trudy  
AANII 240:24-32 '61. (MIRA 15:3)  
(Weather forecasting)

GIRS, A.A.; POLYSALOVA, N.F.

Characteristics of the distribution of pressure anomalies in  
the Arctic during different circulation periods. Trudy AANII  
240:147-152 '61. (MIRA 15:3)  
(Arctic regions--Atmospheric pressure)

AID Nr. 982-2 4 June

**LONG-PERIOD FLUCTUATIONS IN ATMOSPHERIC CIRCULATION APPLIED  
TO CLIMATIC HYDROMETEOROLOGICAL FORECASTS (USSR)**

Girs, A. A. IN: Pervaya nauchnaya konferentsiya po obshchey tsirkulyatsii atmosfery (14-18 Marta 1960). Trudy (Transactions of the First Scientific Conference on General Atmospheric Circulation (14-18 March 1960)). Moskva, Gimiz, 1962. 13-22. S/920/62/000/000/001/005

The author assumes that the principles of G. Ya. Vangengeym on seasonal circulatory succession (westerly, meridional, easterly) and his own conclusions regarding epochal transformations of the three circulation types can be used to predict the circulation type of the next epoch. The method uses the relationship between long-period fluctuations of solar activity and the frequency of the three different types of circulation to predict integral curves for the daily pressure anomalies. If the circulation type of the next epoch is known, the probable weather regime, changes in climate, and changes in levels of the hydrosphere can be predicted from relationships already established between long-period anomalies of meteorological

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AID Nr. 982-2 4 June

LONG-PERIOD FLUCTUATIONS [Cont'd]

8/920/62/000/000/001/005

and hydrological elements on the one hand, and periods of prevailing types of circulation on the other. Only the first steps have been taken toward making 10- to 30-year forecasts of trends in atmospheric and hydrospheric changes. The problem of developing a method for compiling 10-month forecasts has been worked out by studying laws governing the transformation of westerly, meridional, and easterly types over 14-month periods (from August through October of the subsequent year during the years 1900 to 1958). Two representative 14-month periods with exactly opposite prevailing circulation types, and temperature and pressure anomalies have also been analyzed (August 1944 to October 1945, and August 1913 to October 1914).

[GSM]

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GIRS, A.A.

General regularities in the interaction of the various forms  
of atmospheric circulation in the Northern Hemisphere. Izv.  
AN SSSR. Ser. geog. no.6:15-26 N-D '63. (MIRA 17:1)

1. Arkticheskiy i Antarkticheskiy nauchno-issledovatel'skiy  
institut.

ACCESSION NR: AT4015834

S/2561/63/000/014/G005/0015

AUTHOR: Girs, A. A.

TITLE: On the question of the aim and coordination of research in the problem of long-range meteorologic forecasts

SOURCE: Leningrad. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut, Problemy\* Arktiki i Antarktiki (Problems of the Arctic and Antarctic); sb. statey, no. 14, 1963, 5-15

TOPIC TAGS: long-range weather forecasting, general atmospheric circulation, season classification,

ABSTRACT: Despite the number of Soviet institutions working on long-range weather forecasting and the wide scope of this work, the theoretical bases and the quality of the forecasts themselves do not fully satisfy ever-growing practical needs. Reviewing his own and others' findings and publications, the author emphasizes that only international collaboration can provide the requisite data on the general circulation of the atmosphere. The main object of his paper is to consider how to study this from the now available data and in application to the problems of perfecting the existing methods and working out new ones; also to single out certain important questions on which an adequate coordination of the efforts of

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the country's various institutions is already possible. The characteristics of the general circulation of the atmosphere obtained from various mean multi-year data and diagrams give only a very general notion of it. A second object is to work out uniform criteria for breaking down the macro-processes of the various forms of circulation into their elementary stages, to make such a breakdown for the available series of observations (1900--1961) and to obtain the regime characteristics of such stages reflecting the state of the atmosphere and hydrosphere of the northern hemisphere. A study of the laws governing the transformations of circulation from season to season or from month to month must take into account the epochal background and the place or stage of a given year in the chain of epochal transformations. The author is convinced that without this no noticeable progress can be made in perfecting the methods of seasonal and monthly forecasting, and extension to a year or epoch is out of the question. A third object is to work out uniform criteria for distinguishing circulation epochs, to break down the available data into these epochs and to obtain the complex qualitative and quantitative characteristics of each epoch reflecting the physics of the

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state of the atmosphere and hydrosphere at least in the northern hemisphere. The author proposes the following course for further research: 1) study year by year the intra-year transformations of circulation, using a uniform catalog of atmospheric-circulation forms and their elementary stages, and also their complex characteristics in the northern hemisphere; 2) classify the years having homogeneous intra-year transformations and weather regime, taking into account the circulation background of the epochs in which the years are located, and obtain like-type groups of years; 3) distinguish in each like-type group of years the periods of homogeneous circulation and construct group characteristics for them from each of the elements of the above-mentioned complex; 4) classify the like-named seasons, taking into account the character of the season preceding them; 5) study the character of the intra-season transformation in each season belonging to a given seasonal group; 6) classify the elementary stages of the various forms of circulation found within each season in order to elaborate and perfect the "low-timeliness" methods. The author disagrees with the opinion sometimes expressed that the laws governing the succession of various types of processes in a preceding period are no reliable basis for constructing a long-range weather-forecasting method.

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ACCESSION NR: AT4015834

ASSOCIATION: Arktisheskiy i Antarkticheskiy nauchno-issledovatel'skiy institut  
(Arctic and Antarctic Scientific Research Institute)

SUBMITTED: 28Jan63

DATE ACQ: 02Mar64

ENCL: 00

SUB CODE: AS

NO REF SOV: 015

OTHER: 001

ACCESSION NR: AR4020754

S/0169/64/000/001/B039/B059

SOURCE: RZh. Geofizika, Abs. 1B328

AUTHOR: Girs, A. A.

TITLE: Some characteristics of intra-annual transformations of atmospheric circulation forms and their significance in forecasting

CITED SOURCE: Tr. Arkt. i Antarkt. n.-i. in-ta, v. 253, 1963, 33-56

TOPIC TAGS: Atmospheric circulation form, long range forecasting, atmospheric pressure anomaly, atmospheric temperature anomaly

TRANSLATION: In order to make use of the intra-annual characteristics of transformations of atmospheric circulation forms W, E and C for long-range forecasting of up to 10 months' duration, their characteristics during the preceding period were investigated. Thus, in forecasts for January-October, use was made of the characteristics of transformations of circulation forms for August-December of the preceding year. For 1900-1959, the transformations of circulation forms in August-December were divided into seven groups of

ACCESSION NR: AR4020754

similar type of transformation, each of which included from 5 to 12 years. For each group, graphs of the monthly anomalies of all the circulation forms W, E, and C were plotted for the period from August of the preceding year to October of the following year being forecast. The same graphs were plotted for the analogous forms Z,  $M_1$  and  $M_2$ , observed in the American Pacific sector of the northern hemisphere.

For all months of both the reference and the forecast year, monthly charts of pressure and temperature anomalies were plotted for the entire northern hemisphere; such charts make it possible to evaluate the extent of agreement between the anomalies of the circulation forms and the pressure and temperature anomalies over the region of the northern hemisphere.

In addition, these charts serve to prepare basic long-range hydrologic forecasts of the development of circulation forms and of the distribution of pressure and temperature anomalies in the northern hemisphere. To this end, for the period August-December of the reference year, the character of the macroprocesses of the northern hemisphere are studied, and graphs of variations in circulation forms from one month to the next as well as the corresponding monthly charts of pressure and temperature anomalies are plotted.

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The information obtained is compared with the group charts, which are considered typical and have a definite relationship with the months of the following year. The forecast graphs used are typical graphs for January-October of the group which agrees most with the development of the processes in the reference period of August-December. Since there are not enough group charts and graphs for preparing effective quantitative forecasts for each of the ten months, it is necessary to consider the specific properties of the transformation of circulation for specific years and the difference of these transformations from average group characteristics; for this, it is recommended that use be made of circulation homologues matched with the processes of the reference (August-December) period. L. Klimenko

DATE ACQ: 03Mar64

SUB CODE: AS

ENCL: 00

"APPROVED FOR RELEASE: Tuesday, September 17, 2002

CIA-RDP86-00513R000

Card 277 APPROVED FOR RELEASE: Tuesday, September 17, 2002

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ACCESSION NO: AT4048752

changed from 2 to 10 months. The author notes that atmospheric circulation is not the

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DYDINA, Lyudmila Aleksandrovna; GHS, A.A., red.; BAKULOVA, R.I.,  
red.

[Macrocirculation method of forecasting the weather for  
3-10 days in the Arctic] Makrotsirkuliatsiorny metod  
prognozov pogody na 3-10 surok dlia Arktiki. Leningrad,  
Gidrometeor. izd-vo, 1964. 390 p. (MIRA 17:12)



GIRS, A. A., doktor geograf.nauk, prof.

Creation of a unified classification of macrosynoptic processes  
in the Northern Hemisphere. Meteor.i gidrol.no. 4:43-47 Ap '64.  
(MIRA 17:5)

1. Arkticheskiy i antarktiicheskiy nauchno-issledovatel'skiy  
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GIRS, A.A.

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15-month meteorological forecasts for the Arctic. Trudy ANII  
262:5-69 '65. (NER 19:1)

GIRS, G.I.

Physiological characteristics of woody plants in the steppe  
regions of the Khakass Autonomous Province. Trudy Inst.  
biol. UFAN SSSR no. 43:73-76 '65 (MIRA 19:1)

1. Institut lesa i drevesiny Sibirskogo otdeleniya AN SSSR.

GIRS, I.V., kandidat tekhnicheskikh nauk.

Calculating the residuary resistance of waves to a ship's motion  
by means of effect coefficients. Sudostroenie 23 no.3:1-5 Mr '57.

(MLRA 10:5)

(Ship propulsion)  
(Hulls (Naval architecture))

GIRS, I.V., kandidat tekhnicheskikh nauk.

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20-25 My '57. (Leningrad--Shipbuilding) (MLRA 10:6)

GIRS, T.V., land. tekhn. nauk

Fourteenth Scientific and Technical Conference on Ship Architecture  
and the Hydrodynamics of a Ship. Saratovskiy 1964. 11-12. 1964.  
(USSR 17:12)

GIRSA, I.I.

Effect of different light conditions on the availability of food  
organisms to certain fishes. Trudy Inst.norf.shiv. no.13:118-128  
'60. (MIRA 13:6)

(Fishes--Food)

BORUTSKIY, Ye.V.; GIRSA, I.I.

The technique of determining the size-weight characteristics of  
invertebrate organisms serving as food of fishes. Vop. ikht. no.17:  
150-158 '61. (MIRA 14:5)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh AN SSSR.  
(Amphipoda) (Marine biology—Research)



BORUTSKIY, Ye.V.; GIRSA, I.I.

The technique of determining the size-weight characteristics of invertebrate organisms serving as food of fishes. Report No.5: Length-weight (live, raw, dry)-size relationships of labia in larvae of some dragonfly species. Vop.ikht. 1 no.2:354-362 '61.

(MIRA 14:6)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh imeni A.N.Severtsova Akademii nauk SSSR, Moskva.

(Fishes--Food) (Larvae--Insects) (Dragonflies)

GIRSA, I.I.

Availability of food organisms to some fishes under different  
light conditions. Trudy sov. Ikht. kom. no.13:355-359 '61.

(MIRA 14:8)

1. Laboratoriya ikhtiologii Instituta morfologii zhivotnykh  
AN SSSR.

(Fishes--Food)

(Sense organs--Fishes)

GIRSA, I.I.

Effect of varying light conditions on the accessibility of food organisms to predatory fishes of different ecological groups. Vop. ikht. 2 no.1:183-191 '62. (MIRA 15:3)

1. Laboratoriya ikhtiologii instituta morfologii zhivotnykh imeni A.N. Severtsova AN SSSR.

(FISHES--FOOD)

(LIGHT)

GIRSA, I.I.

Effect of the formation of defensive conditioned reflexes on  
the reduced exposure of small fishes to predatory fishes.  
Vop.ikht. 2 no.4:747-749 '62. (MIRA 16:2)

1. Institut morfologii zhivotnykh imeni A.N.Severtsova AN SSSR,  
laboratoriya ikhtiologii, Moskva.  
(Conditioned response) (Fishes--Behavior)

VOYTRUNSKIY, Yaroslav Iosifovich; GIKHMAN, V.I., kand. tekhn.  
nauk, red.; GIKHMAN, I.V., kand. tekhn. nauk, nauchn.  
red.; GIKHMAN, I.I., red.

[Resistance of water to the movement of ships] Soprotivle-  
nie vody dvizheniiu sudov. Leningrad, Sudostroyeniye, 1964.  
411 p. (MIRA 17:8)

GIRSA, Jiri, 'inm., arch.

"Atlas of designs and constructions" by Walter Henn. Reviewed  
by Jiri Girsa. Inz stavby 10 no.3:118-119 Mr '62.

8(4), 9(2)

SOV/112-59-2-3162

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 2,  
pp 130-131 (USSR)

AUTHOR: Mondrus, D. B., and Girsanov, G. L.

TITLE: High-Frequency Outfits With Tube Oscillators  
(Vysokochastotnyye ustanovki s lampovymi generatorami)

PERIODICAL: V sb.: Raboty M-va Elektrotekhn. prom-sti SSSR po mekhaniz. i  
avtomatiz. nar. kh-va I, M., pp 144-154

ABSTRACT: Advantages of high-frequency heating in thermal treatment, metal melting, dielectric drying, etc., are briefly listed. The outfits are classified according to application, and simplified circuit diagrams of rectifying and generating parts of some outfits are presented. Outside dimensions and appearance of all outfits are supplied. Fundamental characteristics of all outfits built by the Leningrad factory are tabulated: type, application, frequency, power, anode-transformer data, also data of rectifiers and tube oscillators.

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SOV/112-59-2-3162

#### High-Frequency Outfits With Tube Oscillators

The oscillators for high-frequency drying are equipped with anti-noise devices. New developments aim at modernization, higher capacities (0.5 kw and up to 500 kw), and wider fields of application. To improve noise suppression in existing outfits, the frequencies used will be lowered. New types of tubes with a lower anode voltage are adopted, voltage stabilization is introduced, etc. An experimental thyatron outfit has been built for generating machine-band frequencies with an efficiency of 92-93%. Development of high-frequency oscillators for ultrasonic outfits is planned.

L.A.G.



16(1)

AUTHOR: Girsanov, I.G. SOV/20-129-3-4/70  
TITLE: Some Topologies Connected With Markov Processes  
PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 3, pp 488-491 (USSR)  
ABSTRACT: The present paper contains several proposals for the introduction of a topology in the space of states connected with a homogeneous Markov process. The same problem was already considered in [Ref 2].  
The author thanks Ye.B.Dudnik for discussions.  
There are 7 references, 3 of which are Soviet and 2 American.  
ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova (Moscow State University imeni M.V.Lomonosov)  
PRESENTED: June 23, 1959, by P.S.Aleksandrov, Academician ✓  
SUBMITTED: June 19, 1959

NOGID, Lev Markovich; GIRS, I.V., kand.tekhn.nauk, retsenzent;  
SHPAKOV, V.S., kand.tekhn.nauk, retsenzent; DORIN, V.S.,  
nauchnyy red.; SHAKHNOVA, V.M., red.; SHISHKOVA, L.M.,  
tekhn. red.

[Planning the shape of a ship and preparing preliminary drawings]  
Proektirovanie formy sudna i postroenie teoreticheskogo  
chertezha. Leningrad, Sudpromgiz, 1962. 242 p.  
(MIRA 15:8)

(Hulls (Naval architecture))

GIRS, I.V., kand. tekhn. nauk

A.N. Krylov's work in the experimental shipbuilding basin.

Sudostroenie 29 no.8:16-19 Ag '63.

{MIRA 16:10}

(Krylov, Aleksei Nikolaevich, 1863-1945)

(Ship models---Testing)

FEYGIN, Ye.A.; PLATONOV, V.M.; MUKHINA, T.N.; GIRSANOV, I.V.

Methods for the optimal design of the coil of a pyrolysis  
furnace. Khim.prom. no.7:519-526 J1 '63. (MIRA 16:11)

1. Moskovskiy gosudarstvennyy universitet (for Girsanov).

DYNKIN, Ye.B. (Moscow); GIRSANOV, I.V. (Moscow)

Nineteenth mathematics contest for Moscow schools. Mat. pros. no.1:  
187-194 '57. (MIRA 11:7)  
(Moscow--Mathematics--Competitions)

GIRSANOV, I. V.

"Some Examples of Dynamical Systems with a Continuous Spectrum."

A summary of papers presented at the Sessions of the Scientific Research Seminar on the Theory of Probability, Moscow, September-March 1957-1958.  
Teoriya veroyatnostey i yeye primeneniya, 1958, Vol III, Nr 2, pp 212-216 (USSR)

NOV/5E-3-2-10/10

A Summary of Papers Presented at the Sessions of the Scientific Research Seminar on the Theory of Probability, Moscow, September-March 1957-1958 \*

time a normal process with a short multiple spectrum can be defined also for a continuous duration of entropy. Therefore a solution can be obtained for a problem in metric theory of dynamical system existing as a transitory set of the non-spectral invariant.

→ I. V. Girsanov - Some examples of dynamical systems with a continuous spectrum. If  $x(t, \omega)$  is a substantial Gaussian process and  $F(dx)$  is its continuous spectrum, then the displacement  $S_t x(t, \omega)$  retains its value on the space of trajectory, thus defining a certain dynamical system. The system is related to a group of the unitary operators  $U^t$  on the Hilbert space  $H$  which describes the substantial functionals of trajectory. The spectrum of the group  $U^t$  is described by the maximum  $\rho$  and the multiple function  $\nu(x)$ .

It has been proved that  $\rho = \sum F^i$  where  $F^i$  represents  $i$ -composition of  $F$ . If  $X$  is a complete numerical set,  $F_0$  a continuous value having  $X$  as its carrier, then the spectral process  $F(dx) = F_0(dx)$  has a single spectrum with

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NOV/52-3-2-10/10

A Summary of Papers Presented at the Sessions of the Scientific Research Seminar on the Theory of Probability, Moscow, September-March 1957-1958

the maximum  $\rho$ . The cyclic vector on  $H$  can be described as a series of stochastic integrals. In the case of  $F(dx) = F_0(dx) + F_0^2(dx)$  the process has the same maximum  $\rho$

but the spectrum will not be simple. Generally, it can be stated that: if a spectrum  $F$  of a process  $x(t, \omega)$  has a definite value then the spectrum of a dynamical system defined by this process contains only single components.

M. G. Shur "Ergodic properties of invariant Markov chains on homogeneous spaces". Published in this issue.

B. A. Sevast'yanov "Branching stochastic processes for particles diffusing in a restricted domain with absorbing boundaries". Published in this issue.

B. A. Rogozin "Some problems in the field of limit theorems". Published in this issue.

V. Sazonov "On characteristic functionals". Published in this issue.

Card 6/5 There are 2 references, 1 Soviet, 1 English.

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20-119-5-2/59

AUTHOR: Girsanov, I.V.

TITLE: On the Spectra of Dynamic Systems Being Generated by Stationary Gaussian Processes (O spektrakh dinamicheskikh sistem, poroshdayemykh statsionarnymi gaussovskimi protsessami)

PERIODICAL: Doklady Akademii Nauk <sup>SSSR</sup>, 1958, Vol 119, Nr 5, pp 851-853 (USSR)

ABSTRACT: Let  $x(t, \omega) = \int e^{i\lambda t} \phi(d\lambda, \omega)$  be a real stationary process (in the narrow sense) with the spectral measure  $F(d\lambda) = M(|\phi(d\lambda, \omega)|^2)$ .

For the translation  $S_\tau x(t, \omega) = x(t + \tau, \omega)$  the measure remains in the space of the trajectories of the process such that a dynamic system is defined to which in the Hilbert space  $H$  of the real functionals of the trajectories of the process there corresponds the group  $U^\tau$  of unitary operators. The spectrum of  $U^\tau$  is described by the maximal spectral type  $\varrho$  and by the function  $\gamma(\lambda)$ . For  $\gamma(\lambda) \equiv 1$  the spectrum is called simple. The spectrum has a simple component if there exists a set  $A$  such that  $\gamma(A) > 0$ ,  $\gamma(\lambda) = 1$  for  $\lambda \in A$ . The measure  $F$  has a measurable base  $X$  if there exists a set  $X$  with the following properties: 1) between positive elements of  $X$  there exist no rational relations, 2)  $X$  and all  $X^1$ ,  $1 \geq 1$ ,

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69761

S/155/59/000/02/001/036

16.2800

AUTHORS: Girsanov, I.V., Mityagin, B.S.

TITLE: Quasiinvariant Measures in Topological Linear Spaces

PERIODICAL: Nauchnyye doklady vysshey shkoly. Fiziko-matematicheskiye nauki, 1959, No. 2, pp. 5-9

TEXT: A finite measure on the topological space  $E$  is defined to be a countably additive nonnegative real function  $\mu$  which is defined on a  $\sigma$ -algebra

$\Sigma$  of sets in  $E$ , where  $\Sigma$  contains all Borel sets and it is  $0 < \mu E < \infty$ . A measure on a topological linear space  $E$  is called quasiinvariant, if for a displacement by an arbitrary vector  $x \in E$  the measurable sets (i.e. the sets belonging to  $\Sigma$ ) are transformed into measurable sets and sets of measure zero into sets of measure zero.

Theorem 1 : In an infinite dimensional complete separable metrizable linear space there exists no quasiinvariant measure.

Theorem 2 : Let  $E = \bigcup_{i=1}^{\infty} E_i$ ,  $E_i$  a Borel subset of  $E$  for all  $i$ ; let on  $E_i$

exist no quasiinvariant measure. Then also on  $E$  there exists no quasiinvariant measure.

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Quasiinvariant Measures in Topological Linear  
Spaces

S/155/59/000/02/001/036

The measure  $\mu$  on  $F$  is called quasiinvariant with respect to the group  $G$ , if  $g \in G$  transforms measurable sets into measurable sets and sets of measure zero into sets of measure zero. The group  $G$  is called compactly acting on  $F$ , if a set  $\{g_i\} \in G$  ( $i = 1, 2, \dots$ ), for which there are two convergent

sequences  $x_i, y_i$  with the property that  $y_i = x_i g_i$ , is compact in  $G$ . Let  $K_\sigma$  denote the sum of countably many compacta.

Theorem 3 : Let  $F$  be a complete separable metric space,  $G$  a transitive continuous transformation group which acts compactly on  $F$ . Let the measure  $\mu$  exist on  $F$  which is quasiinvariant with respect to  $G$ . Then  $F$  is of the type  $K_\sigma$ .

I.M. Gel'fand and V.N. Sudakov are mentioned in the paper. The authors thank D.A. Raykov for advices. There are 8 references: 3 Soviet, 2 French, 2 American and 1 Hungarian.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova  
(Moscow State University imeni M.V. Lomonosov)

SUBMITTED: February 24, 1959

16(1)

AUTHOR: Girsanov, I.V.

SOV/52-4-3-8/10

TITLE: On a Property of Nonsingular Diffusion Processes

PERIODICAL: Teoriya veroyatnostey i yeye primeneniye, 1959, Vol 4, Nr 3, pp 355-361 (USSR)

ABSTRACT: The author treats a question asked by Ye.B.Dynkin at the Third Mathematical All-Union Congress and he shows: If  $X$  is a non-singular diffusion process in the  $R^n$ ,  $U$  is a domain and  $\tau_U$  is the moment in which the boundary of  $U$  is reached for the first time, then the course of the process  $X$  inside of  $U$  is determined by the functions  $m(x) = M_x \tau_U$  and  $\pi(x, \Gamma) = P_x \{x_{\tau_U} \in \Gamma\}$ .

The author mentions I.N.Vekua, and Ye.M.Landis.

There are 8 references, 5 of which are Soviet, and 3 American.

SUBMITTED: May 20, 1959